

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: CTL58828

Luminaire Tested: **NB-SW-1T8-DL4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: CTL58828  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: NB-SW-1T8-DL4  
Description: NAVIGATOR II SUSPENDED LUMINAIRE  
WITH 18 CELL LOUVER FABRICATED WHITE PAINTED METAL & DOWNLIGHT KIT  
  
Light Source: 32 WATT T8 LAMP  
FP32T8/835. LUMEN RATING = 2900 LMS.  
Ballast/Driver: -

**Summary**

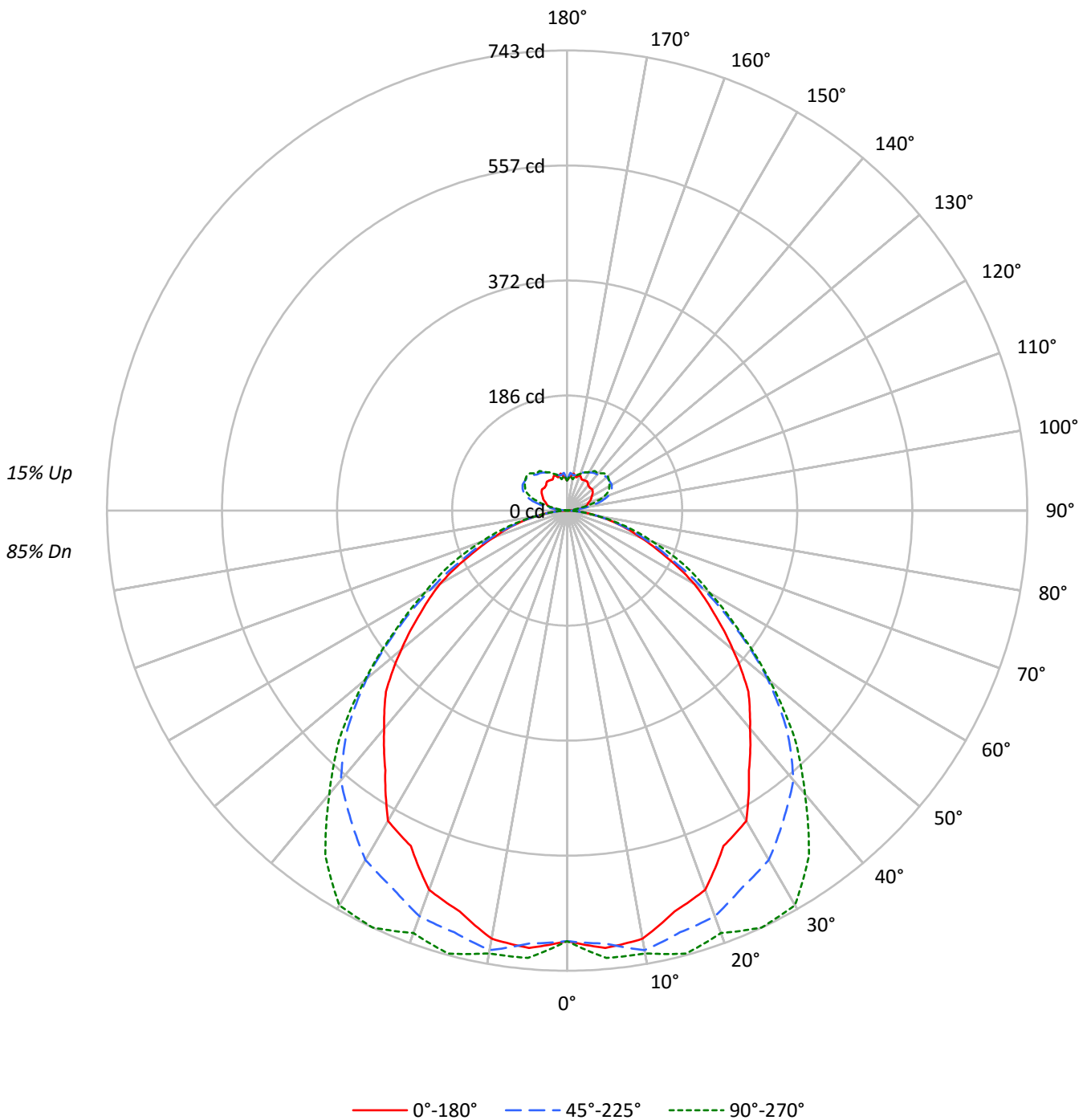
Lumens per Lamp: 2900 (1 lamp)  
Luminaire Lumens: 2285.6 lumens  
Efficiency: 78.8%  
Efficacy: 58.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.46 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.75' x L: 4' x H: 0.24')  
CIE Type: Semi-Direct

Input Watts (W): 39  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |    |
| RC  | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 | 0  |
| RW  | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 91 | 91 | 91 | 91 | 87 | 87 | 87 | 87 | 81 | 81 | 81 | 75 | 75 | 75 | 69 | 69 | 69 | 67 |
| 1   | 84 | 80 | 77 | 74 | 80 | 77 | 74 | 72 | 72 | 69 | 67 | 67 | 65 | 63 | 62 | 61 | 59 | 57 |
| 2   | 76 | 70 | 65 | 61 | 73 | 68 | 63 | 60 | 63 | 60 | 56 | 59 | 56 | 53 | 55 | 52 | 50 | 48 |
| 3   | 70 | 62 | 56 | 51 | 67 | 60 | 55 | 50 | 56 | 51 | 48 | 52 | 49 | 45 | 49 | 46 | 43 | 41 |
| 4   | 64 | 55 | 49 | 44 | 61 | 53 | 47 | 43 | 50 | 45 | 41 | 47 | 43 | 39 | 44 | 40 | 37 | 35 |
| 5   | 59 | 49 | 43 | 38 | 57 | 48 | 42 | 37 | 45 | 40 | 36 | 42 | 38 | 34 | 39 | 36 | 33 | 31 |
| 6   | 55 | 45 | 38 | 33 | 52 | 43 | 37 | 32 | 41 | 35 | 31 | 38 | 34 | 30 | 36 | 32 | 29 | 27 |
| 7   | 51 | 40 | 34 | 29 | 48 | 39 | 33 | 29 | 37 | 32 | 28 | 35 | 30 | 27 | 33 | 29 | 26 | 24 |
| 8   | 47 | 37 | 30 | 26 | 45 | 36 | 30 | 26 | 34 | 28 | 25 | 32 | 27 | 24 | 30 | 26 | 23 | 21 |
| 9   | 44 | 34 | 28 | 23 | 42 | 33 | 27 | 23 | 31 | 26 | 22 | 29 | 25 | 22 | 28 | 24 | 21 | 19 |
| 10  | 41 | 31 | 25 | 21 | 40 | 30 | 25 | 21 | 29 | 24 | 20 | 27 | 23 | 20 | 26 | 22 | 19 | 17 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2494 | 2494 | 2494 |
| 5°  | 2540 | 2469 | 2541 |
| 10° | 2531 | 2507 | 2504 |
| 15° | 2450 | 2443 | 2534 |
| 20° | 2435 | 2425 | 2483 |
| 25° | 2301 | 2360 | 2560 |
| 30° | 2317 | 2337 | 2574 |
| 35° | 2152 | 2246 | 2437 |
| 40° | 2049 | 2173 | 2207 |
| 45° | 1981 | 2010 | 1998 |
| 50° | 1822 | 1787 | 1726 |
| 55° | 1667 | 1514 | 1458 |
| 60° | 1542 | 1247 | 1229 |
| 65° | 1318 | 995  | 1055 |
| 70° | 1122 | 803  | 824  |
| 75° | 978  | 608  | 612  |
| 80° | 747  | 413  | 379  |
| 85° | 543  | 180  | 145  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 67.7   | 3.0       | 2.3    |
| 10°-20°   | 199.0  | 8.7       | 6.9    |
| 20°-30°   | 309.9  | 13.6      | 10.7   |
| 30°-40°   | 378.2  | 16.5      | 13.0   |
| 40°-50°   | 371.2  | 16.2      | 12.8   |
| 50°-60°   | 293.4  | 12.8      | 10.1   |
| 60°-70°   | 192.1  | 8.4       | 6.6    |
| 70°-80°   | 96.4   | 4.2       | 3.3    |
| 80°-90°   | 24.4   | 1.1       | 0.8    |
| 90°-100°  | 13.6   | 0.6       | 0.5    |
| 100°-110° | 49.4   | 2.2       | 1.7    |
| 110°-120° | 68.0   | 3.0       | 2.3    |
| 120°-130° | 68.1   | 3.0       | 2.3    |
| 130°-140° | 58.1   | 2.5       | 2.0    |
| 140°-150° | 44.2   | 1.9       | 1.5    |
| 150°-160° | 29.9   | 1.3       | 1.0    |
| 160°-170° | 16.8   | 0.7       | 0.6    |
| 170°-180° | 5.3    | 0.2       | 0.2    |
| 0°-30°    | 576.6  | 25.2      | 19.9   |
| 0°-40°    | 954.8  | 41.8      | 32.9   |
| 0°-60°    | 1619.4 | 70.8      | 55.8   |
| 0°-90°    | 1932.2 | 84.5      | 66.6   |
| 90°-120°  | 131.1  | 5.7       | 4.5    |
| 90°-150°  | 301.4  | 13.2      | 10.4   |
| 90°-180°  | 353.0  | 15.4      | 12.2   |
| 0°-180°   | 2285.6 | 100.0     | 78.8   |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 695 | 695   | 695 | 695   | 695 |      |
| 5°   | 709 | 705   | 702 | 717   | 725 | 67   |
| 15°  | 670 | 681   | 705 | 725   | 741 | 190  |
| 25°  | 598 | 633   | 671 | 708   | 743 | 280  |
| 35°  | 512 | 557   | 609 | 667   | 681 | 323  |
| 45°  | 414 | 456   | 502 | 513   | 520 | 316  |
| 55°  | 289 | 321   | 335 | 335   | 339 | 261  |
| 65°  | 175 | 188   | 184 | 205   | 209 | 176  |
| 75°  | 86  | 86    | 88  | 91    | 97  | 91   |
| 85°  | 22  | 21    | 18  | 17    | 16  | 24   |
| 90°  | 3   | 2     | 1   | 1     | 0   | 6    |
| 95°  | 16  | 15    | 9   | 6     | 4   | 14   |
| 105° | 33  | 49    | 56  | 48    | 40  | 34   |
| 115° | 42  | 58    | 79  | 80    | 74  | 41   |
| 125° | 50  | 64    | 83  | 90    | 83  | 45   |
| 135° | 52  | 64    | 81  | 87    | 85  | 41   |
| 145° | 57  | 63    | 74  | 79    | 78  | 35   |
| 155° | 55  | 61    | 68  | 66    | 68  | 26   |
| 165° | 56  | 58    | 59  | 59    | 59  | 17   |
| 175° | 55  | 57    | 61  | 51    | 57  | 5    |
| 180° | 48  | 48    | 48  | 48    | 48  |      |



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**CANDELA DISTRIBUTION (FULL):**

|      | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|------|-------|-------|-------|-------|-------|
| 0°   | 695.2 | 695.2 | 695.2 | 695.2 | 695.2 |
| 5°   | 709.0 | 704.8 | 701.7 | 717.3 | 725.1 |
| 10°  | 702.0 | 695.5 | 720.7 | 716.4 | 726.1 |
| 15°  | 670.2 | 681.3 | 705.0 | 725.0 | 740.6 |
| 20°  | 651.6 | 656.2 | 697.1 | 723.5 | 726.0 |
| 25°  | 597.5 | 633.0 | 670.6 | 708.1 | 742.8 |
| 30°  | 578.5 | 592.8 | 651.3 | 697.1 | 735.9 |
| 35°  | 511.9 | 557.3 | 609.1 | 667.0 | 680.7 |
| 40°  | 459.5 | 505.5 | 568.3 | 597.4 | 597.4 |
| 45°  | 413.7 | 456.2 | 502.4 | 512.8 | 519.6 |
| 50°  | 349.8 | 386.9 | 422.4 | 421.4 | 426.8 |
| 55°  | 289.3 | 321.0 | 334.7 | 334.9 | 339.4 |
| 60°  | 237.2 | 252.3 | 254.4 | 263.4 | 266.1 |
| 65°  | 175.2 | 187.9 | 184.5 | 204.6 | 209.3 |
| 70°  | 124.6 | 131.1 | 132.9 | 145.9 | 147.5 |
| 75°  | 86.3  | 86.0  | 87.8  | 90.6  | 96.7  |
| 80°  | 48.4  | 52.1  | 50.4  | 51.2  | 51.5  |
| 85°  | 22.2  | 20.6  | 17.8  | 17.2  | 16.4  |
| 90°  | 3.2   | 1.6   | 0.7   | 0.6   | 0.4   |
| 95°  | 16.2  | 15.4  | 8.6   | 5.6   | 3.7   |
| 100° | 24.8  | 38.2  | 33.3  | 24.8  | 15.4  |
| 105° | 33.4  | 49.4  | 56.1  | 48.4  | 39.8  |
| 110° | 36.5  | 59.8  | 72.0  | 71.1  | 61.8  |
| 115° | 42.2  | 58.2  | 79.0  | 80.4  | 73.9  |
| 120° | 45.9  | 64.0  | 83.2  | 84.7  | 78.7  |
| 125° | 50.3  | 64.2  | 83.3  | 89.8  | 83.0  |
| 130° | 53.2  | 66.1  | 84.0  | 92.9  | 85.9  |
| 135° | 51.9  | 63.9  | 80.6  | 87.3  | 84.8  |
| 140° | 53.0  | 61.6  | 76.1  | 82.4  | 78.2  |
| 145° | 57.0  | 62.8  | 74.5  | 79.4  | 78.0  |
| 150° | 56.4  | 63.4  | 70.8  | 71.9  | 71.6  |
| 155° | 55.3  | 60.6  | 68.0  | 66.1  | 68.1  |
| 160° | 61.0  | 61.2  | 64.6  | 62.7  | 63.1  |
| 165° | 55.6  | 58.5  | 59.2  | 59.1  | 59.1  |
| 170° | 60.7  | 55.0  | 57.9  | 55.8  | 51.4  |
| 175° | 54.6  | 56.8  | 61.0  | 50.7  | 56.6  |
| 180° | 48.5  | 48.5  | 48.5  | 48.5  | 48.5  |

(END OF REPORT)